AMENDMENTS

In the Specification

Please amend the specification as follows:

Page 36, lines 29-30, please delete "are preliminary, -they are encouraging since".

In the Claims

Please cancel claims 23, 24 and 25 and amend the remaining claims as follows:

1. (Amended) A process of [radiosensitizing or radioprotecting a cell to the effects of ionizing radiation comprising increasing the rate of transcription of] treating a human cancer patient comprising providing to said cell a gene [for] encoding a [cell] radiosensitizing [or radioprotecting factor] polypeptide operatively linked to a constitutive promoter and contacting said cell with ionizing radiation, whereby the cancer is treated.

6. (Amended) The process of claim 3, wherein the constitutive promoter is the [intermediate]immediate-early CMV enhancer/promoter, the RSV enhancer/promoter, the SV[-]40 early promoter, [and] the SV[-]40 late enhancer/promoter, the MMSV LTR, the

SFFV enhancer/promoter, the EBV origin of replication, the β-actin promoter, or the Egr enhancer/promoter.

7. (Amended) The process of claim 1, comprising transfecting the cell with [a genetic construct comprising a] said gene [that encodes the] encoding said cell radiosensitizing factor [operatively linked to a constitutive] and said promoter.

Rule C2> 8. (Amended) The process of claim 7, wherein the transfection is by liposomes, adenovirus[,] or HSV-1[, or TIL].

9. (Amended) The process of claim 8, wherein the liposome [is] comprises DOTMA, DOTMA/DOPE, or DORIE.

a2 cont. 10. (Amended) The process of claim 8, wherein the transfection is by adenovirus infection.

11. (Amended) The process of claim 8, wherein the transfection is by HSV-1 infection.

Rule C3> 12. (Amended) A process of sensitizing a cell[s] to the effects of ionizing radiation comprising transfecting the cell[s] with an adenovirus vector construct [that comprises a cytokine expression region recombinant insert that expresses and secretes] comprising a gene that

encodes a cytokine [in a mammalian cell], wherein said cytokine is synthesized in and secreted from said cell.

13. (Amended) The process of claim 12, wherein the [vector construct comprising the cytokine expression region] cytokine gene is positioned under control of a promoter other than an adenovirus promoter.

14. (Amended) The process of claim 13, wherein the promoter is the [intermediate]immediate-early CMV enhancer/promoter, the RSV enhancer-promoter, the SV40 early promoter, [and] the SV[-]40 late enhancer/promoter, the MMSV LTR, the SFFV enhancer/promoter, the EBV origin of replication, the β-actin promoter or the Egr enhancer/promoter.

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15. (Amended) The process of claim 1, [wherein increasing the transcription of a gene that encodes a cell radioprotecting factor is accomplished by] comprising transfecting [the] said cell with [a genetic construct comprising a] said gene [that encodes the] encoding said cell radioprotecting factor [operatively linked to a constitutive promoter].

16. (Amended) The process of claim 15, wherein [the cell is radioprotected by increasing the transcription of] said gene encodes MnSOD, IL-1, IL-2, or TNF.

17. (Amended) The process of claim 15, wherein the constitutive promoter is the [intermediate]immediate-early CMV enhancer/promoter, the RSV enhancer-promoter, the SV40 early promoter, [and] the SV[-]40 late enhancer/promoter, the MMSV LTR, the SFFV enhancer/promoter, the EBV origin or replication, the β-actin promoter, or the Egr enhancer/promoter.

18. (Amended) A process of radioprotecting a cell [to] from the effects of ionizing radiation comprising:

(a) [operatively linking] obtaining a genetic construct comprising a gene encoding a cell radioprotecting factor [to] operatively linked to a constitutive promoter [to form a genetic construct]; and

(b) transfecting the cell with the genetic construct;

[(c) exposing the cell to an effective dose of ionizing radiation]

whereby said radioprotecting factor is expressed and said cell is protected from said effects.

19. (Amended) The process of claim 18, wherein the transfecting is by liposomes, adenovirus[,] or HSV-1[, or TIL].

20. (Amended) The process of claim 19, wherein the liposome [is] comprises DOTMA, DOTMA/DOPE, or DORIE.

a2 cont

21. (Amended) The process of claim 19, wherein the transfection is by adenovirus infection.

22. (Amended) The process of claim 19, wherein the transfection is by HSV-1 infection.

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26. (Amended) A process of radioprotecting a cell[s to] from the effects of ionizing radiation comprising transfecting the cell[s] with an adenovirus vector construct [that comprises an expression region that comprises a recombinant insert that expresses and secretes] comprising a gene encoding a radioprotecting factor in a mammalian cell.

27. (Amended) The process of claim 26, wherein the [vector construct comprising the expression region] gene is positioned under control of a promoter other than an adenovirus promoter.

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28. (Amended) The process of claim 27, wherein the promoter is the [intermediate]immediate-early CMV enhancer/promoter, the RSV enhancer/promoter, the SV[-]40 early promoter, [and] the SV[-]40 late enhancer/promoter, the MMSV LTR, the SFFVs enhancer/promoter, the EBV origin of replication, the β-actin promoter or the Egr enhancer/promoter.

30. (Amended) The pharmaceutical composition of claim 29, further defined as comprising the vector construct packaged with a virion or virus particle.

31. (Amended) A method of increasing the [levels] <u>level</u> of a radioprotecting or radiosensitizing factor in a mammal comprising administering to the mammal an effective amount of the pharmaceutical composition of claim 29 or claim 30.

32. (Amended) The method of claim 31, wherein the administering is by means of an intravenous injection of from 10^8 to 10^{11} virus particles.

33. (Amended) The method of claim 31, wherein the mammal is a mouse.

34. (Amended) The method of claim 31, wherein the mammal is a human.

35. (Amended) A process of inhibiting growth of a tumor comprising the steps of:

(a) delivering to said tumor a therapeutically effective amount of DNA molecule comprising a constitutive promoter operatively linked to [an encoding] <u>a</u> region [that encodes] <u>encoding</u> a polypeptide having the ability to inhibit growth of a tumor cell, which

[encoding] coding region further is operatively linked to a transcription-terminating region, whereby said polypeptide is expressed; and

(b) exposing said cell to an effective dose of ionizing radiation,

whereby the growth of said tumor is inhibited by said polypeptide.

36. (Amended) A method of assessing the response of a cell[s] to the constitutive production of radiosensitizing or radioprotecting factors following ionizing radiation, comprising:

(a) growing the cell[s] in culture;

(b) transfecting the cell[s] with a genetic construct comprising a gene that encodes the cell radiosensitizing factor or radioprotecting factor operatively linked to a constitutive promoter, whereby said polypeptide is expressed; [and]

(c) exposing the cell[s] to an effective dose of ionizing radiation; and

(d) assessing the response of said cell.